

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for detecting oxygen consumption in a test sample comprising:

(a) exposing a test sample to a first sensor composition and a control sample to a second sensor composition, said first and second sensor compositions comprising a luminescent compound being inhibited from generating a detectable signal in the presence of an inhibitory amount of oxygen and which generates a detectable signal as the inhibitory amount of oxygen is reduced;

(b) determining the strength of a first said detectable signal generated by said first sensor composition at time intervals

(c) determining the strength of a second said detectable signal generated by said second sensor composition at said time intervals;

(d) comparing the strengths of said first signal with said second signal over said time intervals and determining whether oxygen in said test sample has been consumed wherein said comparing step comprises:

normalizing said first said detectable signals and said second said detectable signals, said normalizing step comprising:

dividing each said first said detectable signal by an initial said first said detectable signal; and

dividing each said second said detectable signal by an initial said second said detectable signal;

calculating the area between curves representative of said normalized first said detectable signals and said normalized said second said detectable signals; and

comparing said area to zero.

2. (Currently amended) The method according to claim 1, wherein said calculating step comprises the step of subtracting said second said detectable signal from said first said detectable signal at each said time interval to provide a corrected first said detectable signal for each said time interval ~~said comparing comprises calculating an area between a sample~~

~~and a control curve and comparing said area to zero.~~

3. (canceled)

4. (Original) The method of claim 1, wherein said luminescent compound is contained within a matrix which is relatively impermeable to water and non-gaseous solutes, but which is permeable to oxygen.

5. (Original) The method of claim 4, wherein said matrix is a rubber or plastic matrix.

6. (Original) The method of claim 4, wherein said matrix is a silicone rubber matrix.

7. (Original) The method of claim 1, wherein said luminescent compound is a tris-4,7-diphenyl-1,10-phenanthroline ruthenium (II) salt.

8. (Original) The method of claim 7, wherein said luminescent compound is tris-4,7-diphenyl-1,10-phenanthroline ruthenium (II) chloride.

9. (Original) The method of claim 1, wherein said luminescent compound is a tris-2,2'-bipyridyl ruthenium (II) salt.

10. (Original) The method of claim 9, wherein said luminescent compound is tris-2,2'-bipyridyl ruthenium (II) chloride hexahydrate.

11. (Original) The method of claim 1, wherein said luminescent compound is 9,10-diphenyl anthracene.

12. (Previously presented) The method of claim 1, wherein said test sample and said control sample are substantially isolated from atmospheric oxygen.

13. (Previously presented) The method of claim 1, wherein said test sample comprises a

reaction mixture of at least one enzyme which catalyzes oxidative reactions, admixed with a quantity of at least one drug, toxin or chemical.

14. (Original) The method of claim 13, wherein said at least one enzyme comprises enzymes in liver cells.

15. (Original) The method of claim 13, wherein the at least one enzyme comprises a cytochrome P450 enzyme.

Claims 16 - 21 (canceled)